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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/517,993 | 03/03/2000 | Jerome H. Lemeson | | 7624 |

23354 7590 11/07/2003

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EXAMINER

ARMSTRONG, ANGELA A

ART UNIT

PAPER NUMBER

2654

DATE MAILED: 11/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/517,993 | LEMESON ET AL. | |
| | Examiner | Art Unit | |
| | Angela A. Armstrong | 2654 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 14 August 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) 21-48 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1 and 11 is/are rejected.
- 7) Claim(s) 2-10 and 12-20 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Invention I, claims 1-20, in Paper No. 4 is acknowledged. The traversal is on the ground(s) that all the embodiments are drawn to class 704 and to only three subclasses in class 704. This is not found persuasive because the six inventions are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because claim 48 is an evidence claim that the combination does not require the particulars of the subcombinations. Additionally, invention II has separate utility such as signal enhancement in various audio environments not requiring visual inputs. Invention III has separate utility such as signal enhancement in a speech recognition system or environment. Invention IV has separate utility such as signal enhancement in an audiovisual environment. Invention V has separate utility such as noise suppression.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Graupe et al (US Patent No. 4,025,721).

3. Regarding claims 1 and 11, Graupe discloses audio signal processing for enhancing speech signal intelligibility for the hearing impaired in the presence of system noise, ambient noise, program background noise, and particular hearing impairments at col. 3, line 48 continuing to col. 5, line 52.

Additionally, Graupe discloses a source of audio signals at col. 3, line 54;

A speech enhancement system comprising a speech processing unit and a speech signal bypass circuit at col. 4, lines 61-66 and col. 5, lines 29-42;

An output signal amplifier at col. 3, lines 56-58;

And at least one output speaker at col. 3, lines 56-58;

Wherein the source of audio signals is connected to the speech enhancement system which either processes the speech signal in the speech processing unit to enhance the intelligibility of the speech signals for the hearing impaired before connection to the output signal amplifier and one or more speakers, or bypass the audio signals directly to the output signal amplifier and one or more speakers, the bypass option and speech enhancement processing operations being under user control, at col. 3, line 48 continuing to col. 4, line 66.

Allowable Subject Matter

4. Claims 2-10 and 12-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Becker et al (US Patent No. 6,192,341) discloses a data processing system and method for customizing data processing system output for sense-impaired users.

Kanevsky et al (US Patent No. 6,618,704) discloses a system and method of teleconferencing with the deaf or hearing-impaired.

Stork et al (US Patent No. 5,77,306) discloses a method and apparatus for extracting speech related facial features for use in speech recognition systems.

Quagliaro et al (US Patent No. 6,408,273) discloses a method and device for the processing of the sounds for auditory correction for hearing impaired individuals.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela A. Armstrong whose telephone number is 703-308-6258. The examiner can normally be reached on Monday-Thursday 7:30-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (703) 305-9645. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

Angela A. Armstrong
Examiner
Art Unit 2654

AAA
November 3, 2003



RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER